

What Is Claimed Is:

1. A method for automatically selecting a rendering intent,
comprising:
5 identifying a device color profile associated with a device; and
automatically selecting a rendering intent based on the transform defined
by the device color profile.
2. The method of claim 1, wherein the device is a device to be
10 emulated.
3. The method of claim 2, wherein the device is a printing press.
4. The method of claim 3, further comprising:
15 receiving a selection indicative of the device color profile.
5. The method of claim 2, further comprising:
determining a minimum luminance the printing press can produce; and
selecting one of a plurality of rendering intents based on a comparison of
20 the minimum luminance to one or more predefined thresholds.
6. The method of claim 5, wherein the selecting step comprises:
selecting a first rendering intent when the minimum luminance exceeds a
predefined threshold; and
25 selecting a second rendering intent otherwise.
7. The method of claim 6, wherein:
selecting a first rendering intent includes selecting a perceptual rendering
intent; and

selecting a second rendering intent includes selecting a colorimetric rendering intent.

5 8. The method of claim 7, further comprising:
receiving input data from a graphic arts application;
generating output data using the input data and the selected rendering intent; and
sending the output data to a proofing printer.

10 9. The method of claim 6, wherein selecting a first rendering intent includes selecting a composite rendering intent.

15 10. The method of claim 6, wherein selecting a second rendering intent includes selecting a composite rendering intent.

20 11. The method of claim 2, further comprising:
identifying an emulation device color profile associated with an emulation device;
wherein the selecting step further comprises selecting a rendering intent based on the emulation device color profile.

25 12. The method of claim 11, wherein the device is a device to be emulated and the emulation device is a device to generate the output of the emulation.

30 13. The method of claim 12, wherein the device is a printing press and the emulation device is a proofing printer, the method further comprising:
receiving a selection indicative of the printing press color profile; and
receiving a selection indicative of the proofing printer color profile.

14. The method of claim 13, further comprising:
selecting a first rendering intent when the difference between a minimum
luminance the printing press can produce and a minimum luminance the proofing
printer can produce exceeds a predefined value; and
5 selecting a second rendering intent otherwise.

15. The method of claim 14, wherein:
selecting a first rendering-intent includes selecting a perceptual rendering
intent; and
10 selecting a second rendering intent includes selecting a colorimetric
rendering intent.

16. The method of claim 14, wherein selecting a first rendering intent
includes selecting a composite rendering intent.
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17. The method of claim 14, wherein selecting a second rendering
intent includes selecting a composite rendering intent.

18. The method of claim 13, further comprising:
20 selecting a first rendering intent when a color gamut of the printing press is
substantially contained within a color gamut of the proofing printer; and
selecting a second rendering intent otherwise.

19. The method of claim 18, wherein:
25 selecting a first rendering intent includes selecting a perceptual rendering
intent; and
selecting a second rendering intent includes selecting a colorimetric
rendering intent.

20. The method of claim 18, wherein selecting a first rendering intent includes selecting a composite rendering intent.

21. The method of claim 18, wherein selecting a second rendering
5 intent includes selecting a composite rendering intent.

22. An apparatus for automatically selecting a rendering intent,
comprising:
means for identifying a device color profile associated with a device; and
10 a rendering engine configured to automatically select a rendering intent
based on the transform defined by the device color profile.

23. The apparatus of claim 22, wherein the device is a device to be
emulated.

24. The apparatus of claim 23, wherein the device is a printing press.

25. The apparatus of claim 24, wherein the means for identifying
comprises:
20 means for receiving a selection indicative of the device color profile.

26. The apparatus of claim 23, further comprising:
means for determining a minimum luminance the printing press can
produce; and
25 means for selecting one of a plurality of rendering intents based on a
comparison of the minimum luminance to one or more predefined thresholds.

27. The apparatus of claim 26, wherein the means for selecting
comprises:

means for selecting a first rendering intent when the minimum luminance exceeds a predefined threshold; and

means for selecting a second rendering intent otherwise.

5 28. The apparatus of claim 27, wherein:

 the means for selecting a first rendering intent includes means for selecting a perceptual rendering intent; and

 the means for selecting a second rendering intent includes means for selecting a colorimetric rendering intent.

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 29. The apparatus of claim 28, further comprising:

 means for receiving input data from a graphic arts application;

 means for generating output data using the input data and a selected rendering intent; and

15 means for sending the output data to the proofing printer.

 30. The apparatus of claim 27, wherein the means for selecting a first rendering intent includes means for selecting a composite rendering intent.

20 31. The apparatus of claim 27, wherein the means for selecting a second rendering intent includes means for selecting a composite rendering intent.

 32. The apparatus of claim 23, further comprising:

25 means for identifying an emulation device color profile associated with an emulation device;

 wherein the means for selecting further comprises means for selecting a rendering intent based on the emulation device color profile.

33. The apparatus of claim 32, wherein the device is a device to be emulated and the emulation device is a device to generate the output of the emulation.

5 34. The apparatus of claim 33, wherein the device is a printing press and the emulation device is a proofing printer, the apparatus further comprising:
means for receiving a selection indicative of the printing press color profile; and
means for receiving a selection indicative of the proofing printer color
10 profile.

35. The apparatus of claim 34, further comprising:
means for selecting a first rendering intent when the difference between a minimum luminance the printing press can produce and a minimum luminance the
15 proofing printer can produce exceeds a predefined value; and
means for selecting a second rendering intent otherwise.

36. The apparatus of claim 35, wherein:
the means for selecting a first rendering intent includes means for selecting
20 a perceptual rendering intent; and
the means for selecting a second rendering intent includes means for selecting a colorimetric rendering intent.

37. The apparatus of claim 35, wherein the means for selecting a first
25 rendering intent includes means for selecting a composite rendering intent.

38. The apparatus of claim 35, wherein the means for selecting a second rendering intent includes means for selecting a composite rendering intent.

30 39. The apparatus of claim 34, further comprising:

means for selecting a first rendering intent when a color gamut of the printing press is substantially contained within a color gamut of the proofing printer; and

means for selecting a second rendering intent otherwise.

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40. The apparatus of claim 39, wherein:

the means for selecting a first rendering intent includes means for selecting a perceptual rendering intent; and

the means for selecting a second rendering intent includes means for selecting a colorimetric rendering intent.

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41. The apparatus of claim 39, wherein the means for selecting a colorimetric rendering intent includes means for selecting a composite rendering intent.

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42. The apparatus of claim 39, wherein the means for selecting a perceptual rendering intent includes means for selecting a composite rendering intent.

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43. A computer program product, tangibly embodied on a computer-readable medium, for automatically selecting a rendering intent, the product comprising instructions operable to cause a processor to:

identify a device color profile associated with a device; and

automatically select a rendering intent based on the transform defined by the device color profile.

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44. The computer program product of claim 43, wherein the device is a device to be emulated.

45. The computer program product of claim 44, wherein the device is a printing press.

46. The computer program product of claim 45, further comprising
5 instructions to:
receive a selection indicative of the device color profile.

47. The computer program product of claim 44, further comprising
instructions to:
10 determine a minimum luminance the printing press can produce; and
select one of a plurality of rendering intents based on a comparison of the
minimum luminance to one or more predefined thresholds.

48. The computer program product of claim 47, wherein the computer
15 readable program code means for causing a computer to select comprises
instructions to:
select a first rendering intent when the minimum luminance exceeds a
predefined threshold; and
select a second rendering intent otherwise.

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49. The computer program product of claim 48, wherein:
the instructions to select a first rendering intent include instructions to
select a perceptual rendering intent; and
the instructions to select a second rendering intent include instructions to
25 select a colorimetric rendering intent.

50. The computer program product of claim 49, further comprising
instructions to:
receive input data from a graphic arts application;

generate output data using the input data and a selected rendering intent;
and
send the output data to the proofing printer.

5 51. The computer program product of claim 48, wherein the
instructions to select a colorimetric rendering intent include instructions to select a
composite rendering intent.

10 52. The computer program product of claim 48, wherein the
instructions to select a perceptual rendering intent include instructions to select a
composite rendering intent.

15 53. The computer program product of claim 44, further comprising
instructions to:
identify an emulation device color profile associated with an emulation
device;
wherein the instructions to select step further comprise instructions to
select a rendering intent based on the emulation device color profile.

20 54. The computer program product of claim 53, wherein the device is a
device to be emulated and the emulation device is a device to generate the output
of the emulation.

25 55. The computer program product of claim 54, wherein the device is a
printing press and the emulation device is a proofing printer, the computer
program product further comprising instructions to:
receive a selection indicative of the printing press color profile; and
receive a selection indicative of the proofing printer color profile.

56. The computer program product of claim 55, further comprising instructions to:

- select a first rendering intent when the difference between a minimum luminance the printing press can produce and a minimum luminance the proofing printer can produce exceeds a predefined value; and
- select a second rendering intent otherwise.

57. The computer program product of claim 56, wherein:

- the instructions to select a first rendering intent include instructions to
- select a perceptual rendering intent; and
- the instructions to select a second rendering intent include instructions to select a colorimetric rendering intent.

58. The computer program product of claim 56, wherein the

- instructions to select a second rendering intent include instructions to select a composite rendering intent.

59. The computer program product of claim 56, wherein the

- instructions to select a second rendering intent include instructions to select a composite rendering intent.

60. The computer program product of claim 55, further comprising instructions to:

- select a colorimetric rendering intent when a color gamut of the printing press is substantially contained within a color gamut of the proofing printer; and
- select a perceptual rendering intent otherwise.

61. The computer program product of claim 60, wherein:

- the instructions to select a first rendering intent include instructions to
- select a perceptual rendering intent; and

the instructions to select a second rendering intent include instructions to select a colorimetric rendering intent.

62. The computer program product of claim 60, wherein the
5 instructions to select a colorimetric rendering intent include instructions to select a composite rendering intent.

63. The computer program product of claim 60, wherein the
instructions to select a perceptual rendering intent include instructions to select a
10 composite rendering intent.

the instructions to select a second rendering intent include instructions to select a colorimetric rendering intent.

62. The computer program product of claim 60, wherein the instructions to select a colorimetric rendering intent include instructions to select a composite rendering intent.